

## CLAIMS

What is claimed is:

1           1. A capacitor comprising:  
2           m electrode plates;  
3                 wherein each of said m electrode plates are arranged spaced apart in parallel;  
4                 wherein m is an integer greater than 1;  
5                 wherein each of said m electrode plates comprises a first extension;  
6           n first external terminals;  
7                 wherein n is an integer greater than 1;  
8                 wherein said n first external terminals are arranged on a first common exterior  
9                 surface of the capacitor;  
10           wherein said first extension of even ones of said m electrode plates are coupled to  
11                 even ones of said n first external terminals;  
12           wherein said first extension of odd ones of said m electrode plates are coupled to odd  
13                 ones of said n first external terminals;  
14           wherein said n first external terminals are arranged at a predefined minimal distance  
15                 from each other to minimize parasitic inductance.

1           2. The capacitor of claim 1, wherein said predefined minimal distance is a minimal  
2           distance that prevents crosstalk between said n first external terminals.

1           3. The capacitor of claim 1, wherein said n first external terminals are arranged in  
2           parallel.

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1           4. The capacitor of claim 1, wherein  $n=2$ ; wherein said  $n$  first external terminals are  
2 arranged in parallel.

1           5. The capacitor of claim 1, wherein  $n=3$ ; wherein said  $n$  first external terminals are  
2 arranged in parallel and wherein said even one of said  $n$  first external terminals is arranged  
3 between the odd ones of said  $n$  first external terminals.

1           6. The capacitor of claim 1, wherein a dielectric material is disposed between each of  
2 said  $m$  electrode plates.

1           7. The capacitor of claim 6, wherein said dielectric material is ceramic material.

1           8. The capacitor of claim 1, wherein exterior ones of said  $n$  first external terminals are  
2 disposed on said common exterior surface of said capacitor and corresponding side surfaces  
3 of said capacitor.

1           9. The capacitor of Claim 1, wherein  $n$  is 4;  
2                wherein a first one and a second one of said  $n$  first external terminals are  
3 arranged in a first row;  
4                wherein a third one and a fourth one of said  $n$  first external terminals are  
5 arranged in a second row;  
6                wherein said first one of said  $n$  first external terminals is arranged adjacent said  
7 second and fourth ones of said  $n$  first external terminals and diagonal to said third one  
8 of said  $n$  first external terminals;  
9                wherein said second one of said  $n$  first external terminals is arranged diagonal to said  
10 fourth one of said  $n$  first external terminals.

1           10. The capacitor of Claim 1,

2       wherein each of said m electrode plates comprises a second extension;

3       wherein said capacitor comprises s second external terminals;

4           wherein s is an integer greater than 1;

5           wherein said s second external terminals are arranged on a second common

6               exterior surface of the capacitor;

7       wherein said second extensions of said even ones of said m electrode plates are

8           coupled to said even ones of said s second external terminals;

9       wherein said second extensions of said odd ones of said m electrode plates are

10           coupled to odd ones of said s second external terminals.

1           11. The capacitor of Claim 10, wherein said second common exterior surface is

2       arranged opposite to said first common exterior surface.

1           12. The capacitor of Claim 1,

2       wherein each of said m electrodes comprises a second extension;

3       wherein the capacitor comprises s second external terminals;

4           wherein s is an integer greater than 1;

5           wherein even ones of said s second external terminals are arranged on a third

6               exterior surface of the capacitor;

7       wherein odd ones of said s second external terminals are arranged on a fourth

8               exterior surface of the capacitor;

9       wherein said second extensions of even ones of said m electrode plates are

10           coupled to even ones of said s second external terminals; and

11       wherein said second extensions of odd ones of said m electrode plates are coupled

12           to odd ones of said s second external terminals.

1           13. The capacitor of Claim 12, wherein said third exterior surface is arranged opposite  
2   to said fourth exterior surface.

1           14. The capacitor of claim 1, further comprising a housing that encloses at least a part  
2   of said capacitor.

1           15. The capacitor of claim 1, wherein height of said capacitor is greater than width of  
2   said capacitor.

1           16. The capacitor of claim 1, wherein a portion of at least one of said n first external  
2   terminals wraps around a corner of said capacitor.

1           17. The capacitor of claim 1, wherein said n first external terminals have a bar  
2   structure.

1           18. A filter comprising:  
2   an inductor;  
3   a capacitor of Claim 1,  
4       wherein said inductor is connected to even ones of said n first external terminals;  
5       wherein an output terminal is connected to even ones of said n first external  
6               terminals; and  
7       wherein a reference voltage is connected to odd ones of said n first external  
8               terminals.

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1 19. The filter of claim 18,  
2 wherein  $n=3$ ;  
3 wherein said  $n$  first external terminals are arranged in parallel and wherein said even  
4 one of said  $n$  first external terminals is arranged between the odd ones of said  $n$   
5 first external terminals;  
6 wherein first and third ones of said  $n$  first external terminals are coupled to  
7 the reference voltage;  
8 wherein one terminal of said inductor is coupled to a first end portion of a  
9 second one of said  $n$  first external terminals; and  
10 wherein the output terminal of said filter is provided at a second end  
11 portion of said second one of said  $n$  first external terminals.

1 20. The filter of claim 18,  
2 wherein  $n=2$ ;  
3 wherein said  $n$  first external terminals are arranged in parallel;  
4 wherein first one of said  $n$  first external terminals is coupled to a reference  
5 voltage ;  
6 wherein one terminal of said inductor is coupled to a first end portion of a  
7 second one of said  $n$  first external terminals; and  
8 wherein an output terminal of said filter is provided at a second end  
9 portion of said second one of said  $n$  first external terminals.

1 21. A voltage regulator comprising the filter of claim 18.  
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1        22. The voltage regulator of claim 21 further comprising a multilayer printed circuit  
2        board;  
3        wherein said capacitor is mounted on said multilayer printed circuit board;  
4        wherein said inductor is connected to a first trace of said multilayer printed circuit  
5                board;  
6        wherein said first trace is connected to said even ones of said n first external terminals  
7                by way of a first plurality of vias;  
8        wherein said output terminal is connected to a second trace on said multilayer printed  
9                circuit board;  
10       wherein said second trace is connected to said even ones of said n first external  
11               terminals by way of a second plurality of vias;  
12       wherein the reference voltage is connected to a third trace on said multilayer printed  
13               circuit board; and  
14       wherein said third trace is connected to said odd ones of said n first external terminals  
15               by way of a third plurality of vias.

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1       23. A printed circuit board ("PCB") comprising:  
2       a plurality of PCB contacts; and  
3       a plurality of capacitors of Claim 1 coupled to said plurality of PCB contacts to  
4               facilitate parallel connections of at least two capacitors.

1       24. A capacitor structure comprising:  
2       a first capacitor comprising:  
3               m electrode plates;  
4               wherein each of said m electrode plates are arranged spaced apart in parallel;

5            wherein m is an integer greater than 1;  
6            wherein each of said m electrodes comprises a first extension;  
7            wherein each of said m electrodes comprises a second extension;  
8            n first external terminals;  
9            wherein n is an integer greater than 1;  
10           wherein said n first external terminals are arranged on a first common  
11           exterior surface of said first capacitor;  
12           wherein said first extension of even ones of said m electrode plates are  
13           coupled to even ones of said n first external terminals;  
14           wherein said first extension of odd ones of said m electrode plates are  
15           coupled to odd ones of said n first external terminals;  
16           s second external terminals;  
17           wherein s is an integer greater than 1;  
18           wherein said s second external terminals are arranged on a second common  
19           exterior surface of the first capacitor;  
20           wherein said second extension of even ones of said m electrode plates are  
21           coupled to even ones of said s second external terminals;  
22           wherein said second extension of odd ones of said m electrode plates are coupled to  
23           odd ones of said s second external terminals  
24           a second capacitor comprising:  
25           x electrode plates;  
26           wherein each of said x electrode plates are arranged in parallel;  
27           wherein x is an integer greater than 1;  
28           wherein each of said x electrodes comprises a third extension;  
29           s third external terminals;

30 wherein said s third external terminals are arranged on a third common  
31 exterior surface of said second capacitor;  
32 wherein said third extension of even ones of said x electrode plates are  
33 coupled to even ones of said s third external terminals;  
34 wherein said third extension of odd ones of said x electrode plates are  
35 coupled to odd ones of said s third external terminals;  
36 wherein said second capacitor is mounted on said first capacitor; and  
37 wherein said s third external terminals are coupled to corresponding ones of  
38 said s second external terminals.

1 25. The capacitor structure of claim 24, further comprising a housing that encloses at  
2 least a part of said first and said second capacitors.

1 26. The capacitor structure of claim 24, wherein said n first external terminals are  
2 arranged in parallel; wherein said s second external terminals are arranged in parallel; and  
3 wherein said s third external terminals are arranged in parallel.

1 27. The capacitor structure of claim 24, wherein  $s=2$ ; wherein said s second external  
2 terminals are arranged in parallel and wherein said s third external terminals are arranged in  
3 parallel.

1 28. The capacitor structure of claim 24, wherein  $s=3$ ; wherein said s second external  
2 terminals are arranged in parallel and wherein said even one of said s second external  
3 terminals is arranged between the odd ones of said s second external terminals and wherein  
4 said s third external terminals are arranged in parallel and wherein said even one of said s  
5 third external terminals is arranged between the odd ones of said s third external terminals.



1           29. The capacitor structure of claim 24, wherein a first dielectric material is disposed  
2 between each of said m electrode plates of said first capacitor; and wherein a second dielectric  
3 material is disposed between each of said x electrode plates of said second capacitor.

1           30. The capacitor structure of 29, wherein said first and second dielectric material are  
2 different.

1           31. The capacitor structure of 29, wherein said first and second dielectric material are  
2 the same.

1           32. The capacitor structure of claim 29, wherein at least one of said first dielectric  
2 material and said second dielectric material comprises a ceramic material.

1           33. The capacitor structure of Claim 24, wherein s is 4;  
2 wherein a first one and a second one of said s second external terminals are arranged  
3 in a first row;  
4 wherein a third one and a fourth one of said s second external terminals are arranged  
5 in a second row;  
6 wherein said first one of said s second external terminals is arranged adjacent to said  
7 second and fourth ones of said s second external terminals and diagonal to said  
8 third one of said s second external terminals;  
9 wherein said second one of said s second external terminals is arranged diagonal to  
10 said fourth one of said s second external terminals;  
11 wherein a first one and a second one of said s third external terminals are arranged in a  
12 first row;

13 wherein a third one and a fourth one of said s third external terminals are arranged in a  
14 second row;

15 wherein said first one of said s third external terminals is arranged adjacent to said  
16 second and fourth ones of said s third external terminals and diagonal to said  
17 third one of said s third external terminals; and

18 wherein said second one of said s third external terminals is arranged diagonal to said  
19 fourth one of said s third external terminals.

1 34. The capacitor structure of Claim 24,

2 wherein each of said x electrodes plates comprises a fourth extension;

3 wherein said capacitor comprises u fourth external terminals;

4 wherein u is an integer greater than 1;

5 wherein said u fourth external terminals are arranged on a fourth common exterior  
6 surface of said second capacitor;

7 wherein said fourth extensions of said even ones of said x electrode plates are coupled  
8 to said even ones of said u fourth external terminals;

9 wherein said fourth extensions of said odd ones of said x electrode plates are coupled  
10 to odd ones of said u fourth external terminals.

1 35. The capacitor structure of Claim 34, wherein said third common exterior surface  
2 is arranged opposite to said fourth common exterior surface.

1 36. The capacitor structure of claim 24, wherein said s second and s third external  
2 terminals have a bar structure.

1 37. A filter comprising:  
2 an inductor;  
3 a capacitor structure of Claim 24;  
4 wherein said inductor is connected to even ones of said n first external terminals;  
5 wherein an output terminal is connected to even ones of said n first external terminals;  
6 and  
7 wherein a reference voltage is connected to odd ones of said n first external terminals.

1 38. The filter of claim 37, wherein  $n=3$ ;  
2 wherein said n first external terminals are arranged in parallel and wherein said even  
3 one of said n first external terminals is arranged between the odd ones of said n  
4 first external terminals;  
5 wherein first and third ones of said n first external terminals are coupled to the  
6 reference voltage;  
7 wherein one terminal of said inductor is coupled to a first end portion of a second one  
8 of said n first external terminals; and  
9 wherein the output terminal of said filter is provided at a second end portion of said  
10 second one of said n first external terminals.

1 39. The filter of claim 37, wherein  $n=2$ ;  
2 wherein said n first external terminals are arranged in parallel;  
3 wherein first one of said n first external terminals is coupled to a reference voltage;  
4 wherein one terminal of said inductor is coupled to a first end portion of a second one  
5 of said n first external terminals; and  
6 wherein an output terminal of said filter is provided at a second end portion of said  
7 second one of said n first external terminals.

1        40. A voltage regulator comprising the filter of claim 37 further comprising a  
2                multilayer printed circuit board; wherein said capacitor structure is mounted on  
3                said multilayer printed circuit board;  
4        wherein said inductor is connected to a first trace of said multilayer printed circuit  
5                board; and  
6        wherein said first trace is connected to said even ones of said n first external terminals  
7                by way of a first plurality of vias;  
8        wherein said output terminal is connected to a second trace on said multilayer printed  
9                circuit board;  
10       wherein said second trace is connected to said even ones of said n first external  
11               terminals by way of a second plurality of vias;  
12       wherein the reference voltage is connected to a third trace on said multilayer printed  
13               circuit board; and  
14       wherein said third trace is connected to said odd ones of said n first external terminals  
15               by way of a third plurality of vias.

1        41. A capacitor structure comprising:  
2        a first capacitor comprising:  
3                m electrode plates;  
4                wherein each of said m electrode plates are arranged spaced apart in  
5                parallel;  
6                wherein m is an integer greater than 1;  
7                wherein each of said m electrodes comprises a first extension and a second  
8                extension;  
9        n first external terminals;

wherein  $n$  is an integer greater than 1;  
wherein said  $n$  first external terminals are arranged on a first common exterior surface of said first capacitor;  
wherein said first extension of even ones of said  $m$  electrode plates are coupled to even ones of said  $n$  first external terminals;  
wherein said first extension of odd ones of said  $m$  electrode plates are coupled to odd ones of said  $n$  first external terminals;;  
 $s$  second external terminals;  
wherein  $s$  is an integer greater than 0;  
wherein said  $s$  second external terminals are arranged on a second common exterior surface of the first capacitor;  
wherein said second extension of even ones of said  $m$  electrode plates are coupled to said  $s$  second external terminals;  
a second capacitor comprising:  
 $x$  electrode plates;  
wherein each of said  $x$  electrode plates are arranged spaced apart in parallel;  
wherein  $x$  is an integer greater than 1;  
wherein each of said  $x$  electrodes comprises a third extension;  
 $s$  third external terminals;  
wherein said  $s$  third external terminals are arranged on a third common exterior surface of said second capacitor;  
wherein said third extension of even ones of said  $x$  electrode plates are coupled to said  $s$  third external terminals;  
wherein said second capacitor is disposed adjacent to said first capacitor;

35                    wherein said s third external terminals are coupled to corresponding ones of  
36 said s second terminals.

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1                    42. The capacitor structure of claim 41, wherein said n first external terminals are  
2 arranged in parallel; wherein said s second external terminals are arranged in parallel; and  
3 wherein said s third external terminals are arranged in parallel.

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1                    43. The capacitor structure of claim 41, wherein s=2; wherein said s second external  
2 terminals are arranged in parallel and wherein said s third external terminals are arranged in  
3 parallel.

1                    44. The capacitor structure of claim 41, wherein s=3; wherein said s second external  
2 terminals are arranged in parallel and wherein said even one of said s second external  
3 terminals is arranged between the odd ones of said n second external terminals and wherein  
4 said s third external terminals are arranged in parallel and wherein said even one of said s  
5 third external terminals is arranged between the odd ones of said s third external terminals.

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1                    45. The capacitor structure of claim 41, wherein a first dielectric material is disposed  
2 between each of said m electrode plates of said first capacitor; and wherein a second dielectric  
3 material is disposed between each of said x electrode plates of said second capacitor.

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1                    46. The capacitor structure of 45, wherein said first and second dielectric material are  
2 different.

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1                    47. The capacitor structure of 45, wherein said first and second dielectric material are  
2 the same.

1 48. The capacitor of claim 41, wherein said n first external terminals are arranged in  
2 parallel.

1 49. The capacitor of claim 41, wherein  $n=2$ ; wherein said n first external terminals are  
2 arranged in parallel.

1 50. The capacitor of claim 41, wherein  $n=3$ ; wherein said n first external terminals are  
2 arranged in parallel and wherein said even one of said n first external terminals is arranged  
3 between the odd ones of said n first external terminals.

1 51. The capacitor of claim 45, wherein at least one of said first second dielectric  
2 material and said second dielectric material comprises a ceramic material.

1 52. The capacitor of Claim 41, wherein n is 4;  
2 wherein a first one and a second one of said n first external terminals are arranged in a  
3 first row;  
4 wherein a third one and a fourth one of said n first external terminals are arranged in a  
5 second row;  
6 wherein said first one of said n first external terminals is arranged adjacent to said  
7 second and fourth ones of said n first external terminals and diagonal to said  
8 third one of said n first external terminals; and  
9 wherein said second one of said n first external terminals is arranged diagonal to said  
10 fourth one of said n first external terminals.

1 53. The capacitor of claim 41, wherein said n first external terminals have a bar  
2 structure.

1        54. A filter comprising:  
2        an inductor;  
3        a capacitor of Claim 41;  
4        wherein said inductor is connected to even ones of said n first external terminals;  
5        wherein an output terminal is connected to even ones of said n first external terminals;  
6                and  
7        wherein a reference voltage is connected to odd ones of said n first external terminals.

1        55. The filter of claim 54, wherein  $n=3$ ;  
2        wherein said n first external terminals are arranged in parallel and wherein said even  
3                one of said n first external terminals is arranged between the odd ones of said n  
4                first external terminals;  
5        wherein first and third ones of said n first external terminals are coupled to the  
6                reference voltage;  
7        wherein one terminal of said inductor is coupled to a first end portion of a second one  
8                of said n first external terminals; and  
9        wherein the output terminal of said filter is provided at a second end portion of said  
10                second one of said n first external terminals.

1        56. The filter of claim 54, wherein  $n=2$ ;  
2        wherein said n first external terminals are arranged in parallel;  
3        wherein first one of said n first external terminals is coupled to a reference voltage;  
4        wherein one terminal of said inductor is coupled to a first end portion of a second one  
5                of said n first external terminals; and  
6        wherein an output terminal of said filter is provided at a second end portion of said  
7                second one of said n first external terminals.



1 57. A voltage regulator comprising the filter of claim 54 further comprising a  
2 multilayer printed circuit board; wherein said capacitor structure is mounted on  
3 said multilayer printed circuit board;  
4 wherein said inductor is connected to a first trace of said multilayer printed circuit  
5 board; and  
6 wherein said first trace is connected to said even ones of said n first external terminals  
7 by way of a first plurality of vias;  
8 wherein said output terminal is connected to a second trace on said multilayer printed  
9 circuit board;  
10 wherein said second trace is connected to said even ones of said n first external  
11 terminals by way of a second plurality of vias;  
12 wherein the reference voltage is connected to a third trace on said multilayer printed  
13 circuit board; and  
14 wherein said third trace is connected to said odd ones of said n first external terminals  
15 by way of a third plurality of vias.

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1 58. The filter of claim 54, wherein  $s=1$ ;  
2 wherein said s second external terminal is coupled to even ones of said m electrode  
3 plates; and  
4 wherein said s third external terminal is coupled to even ones of said x electrode  
5 plates.

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1 59. The capacitor structure of claim 41, wherein at least one of said s second external  
2 terminals extend from said second common exterior surface to said first  
3 common exterior surface of said first capacitor by wrapping around a corner of  
4 said first capacitor.

1           60. A printed circuit board ("PCB") comprising:  
2           a plurality of PCB contacts; and  
3           a plurality of capacitor structures of Claim 41 coupled to said plurality of PCB  
4           contacts to provide parallel connections of at least two capacitors.

1           61. A device comprising:  
2           a first capacitor comprising;  
3           m electrode plates;  
4                 wherein each of said m electrode plates are arranged spaced apart in  
5                 parallel;  
6                 wherein m is an integer greater than 1;  
7                 wherein each of said m electrodes comprises a first extension;  
8                 wherein w electrode plates of said m electrode plates comprise a second  
9                 extension, wherein w is an integer less than m;  
10          n first external terminals;  
11                 wherein n is an integer greater than 1;  
12                 wherein said n first external terminals are arranged on a first common  
13                 exterior surface of said first capacitor;  
14                 wherein said first extension of even ones of said m electrode plates are  
15                 coupled to even ones of said n first external terminals;  
16                 wherein said first extension of odd ones of said m electrode plates are  
17                 coupled to odd ones of said n first external terminals;  
18          s second external terminals;  
19                 wherein s is an integer greater than 1;

20 wherein said s second external terminals are arranged on a second common  
21 exterior surface of the first capacitor;  
22 wherein said second extension of even ones of said w electrode plates are  
23 coupled to even ones of said s second external terminals;  
24 wherein said second extension of odd ones of said w electrode plates are  
25 coupled to odd ones of said s second external terminals;  
26 a second capacitor comprising:  
27 x electrode plates;  
28 wherein each of said x electrode plates are arranged spaced apart in  
29 parallel;  
30 wherein x is an integer greater than 1;  
31 wherein y electrode plates of said x electrode plates comprise a third extension;  
32 wherein y is an integer less than x;  
33 q third external terminals;  
34 wherein q is an integer greater than 1;  
35 wherein said q third external terminals are arranged on a third common  
36 exterior surface of said second capacitor;  
37 wherein said third extension of even ones of said y electrode plates are  
38 coupled to even ones of said q third external terminals;  
39 wherein said third extension of odd ones of said y electrode plates are  
40 coupled to odd ones of said q third external terminals;  
41 wherein said second capacitor is disposed abutting and adjacent to said first  
42 capacitor;  
43 wherein said even ones of said q third external terminals are coupled to said  
44 even ones of said s second terminals; and

45 wherein said odd ones of said q third external terminals are coupled to said odd  
46 ones of said s second terminals.

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1 62. The device of claim 61,

2 wherein z electrode plates of said m electrode plates comprise a fourth extension ;

3 wherein sum of y and z is integer less than or equal to m;

4 wherein the first capacitor further comprises f fourth external terminals;

5 wherein f is an integer greater than 1;

6 wherein said f fourth external terminals are arranged on a fourth common

7 exterior surface of said first capacitor; wherein said fourth common

8 exterior surface is opposite to said second common exterior surface;

9 wherein said fourth extension of even ones of said z electrode plates are

10 coupled to even ones of said f fourth external terminals; and

11 wherein said third extension of odd ones of said z electrode plates are

12 coupled to odd ones of said f fourth external terminals.

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1 63. A circuit comprising:

2 a printed circuit board ("PCB") including a plurality of PCB contacts longitudinally

3 arranged in parallel; and

4 a plurality of capacitors wherein each of said capacitors is arranged abutting with each

5 other and mounted on said PCB; wherein each of said plurality of capacitors

6 comprises said capacitor of Claim 1.

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1 64. The capacitor of Claim 10, wherein said second common exterior surface is

2 arranged substantially orthogonal to said first common exterior surface. .

1           65. The capacitor of Claim 12, wherein said third and fourth common exterior  
2                   surfaces are arranged substantially orthogonal to said first common exterior  
3                   surface. .

1           66. The capacitor of Claim 1,  
2   wherein each of said m electrodes comprises a second extension;  
3   wherein the capacitor comprises s second external terminals;  
4           wherein s is an integer greater than 1;  
5           wherein even ones of said s second external terminals are arranged on a third  
6                   exterior surface of the capacitor;  
7           wherein odd ones of said s second external terminals are arranged on a third  
8                   exterior surface of the capacitor;  
9           wherein said second extensions of even ones of said m electrode plates are  
10                  coupled to even ones of said s second external terminals; and  
11           wherein said second extensions of odd ones of said m electrode plates are coupled  
12                  to odd ones of said s second external terminals.

1           66. The capacitor of Claim 66, wherein said odd ones of said s second external  
2                   terminals are arranged space apart and parallel to said even ones of said s  
3                   second external terminals. .

1           67. The capacitor of claim 14, wherein said housing is formed from an ejection  
2   molding process.

1           68. The capacitor of claim 1, further comprising an encapsulation that encloses at  
2   least a part of said capacitor.

1           69. The capacitor of Claim 24, wherein said second common exterior surface is  
2 arranged substantially orthogonal to said first common exterior surface. .

1           70. The capacitor structure of claim 25, wherein said housing is formed from an  
2 ejection molding process.

1           71. The capacitor structure of claim 24, further comprising an encapsulation that  
2 encloses at least a part of said first and second capacitors.

1           72. The capacitor structure of Claim 24,

2           wherein each of said x electrodes plates comprises a fourth extension;

3           wherein said capacitor comprises u fourth external terminals;

4           wherein u is an integer greater than 1;

5           wherein said u fourth external terminals are arranged on said third common exterior  
6 surface of said second capacitor;

7           wherein said fourth extensions of said even ones of said x electrode plates are coupled  
8 to said even ones of said u fourth external terminals;

9           wherein said fourth extensions of said odd ones of said x electrode plates are coupled  
10 to odd ones of said u fourth external terminals.

1  
1           73. The capacitor structure of Claim 41, wherein said second common exterior  
2 surface is arranged substantially orthogonal to said first common exterior surface,  
3           wherein said third common exterior surface is arranged substantially orthogonal to  
4 said fourth common exterior surface. .

1           74. The device of claim 61, further comprising a housing that encloses at least a part  
2 of said device. .

1           75. The device of claim 74, wherein said housing is formed from an ejection molding  
2 process.

1           76. The device of claim 61, further comprising an encapsulation that encloses at least  
2 a part of said device.

1           77. The device of claim 1, wherein the predefined minimal distance is less than 12  
2 mils.

1           78. The device of claim 1, wherein the predefined minimal distance is less than 8  
2 mils.

1           79. The capacitor structure of claim 25, wherein the housing comprises a fin to  
2 dissipate heat from said first and second capacitors..